

SCANDIA Discussed...

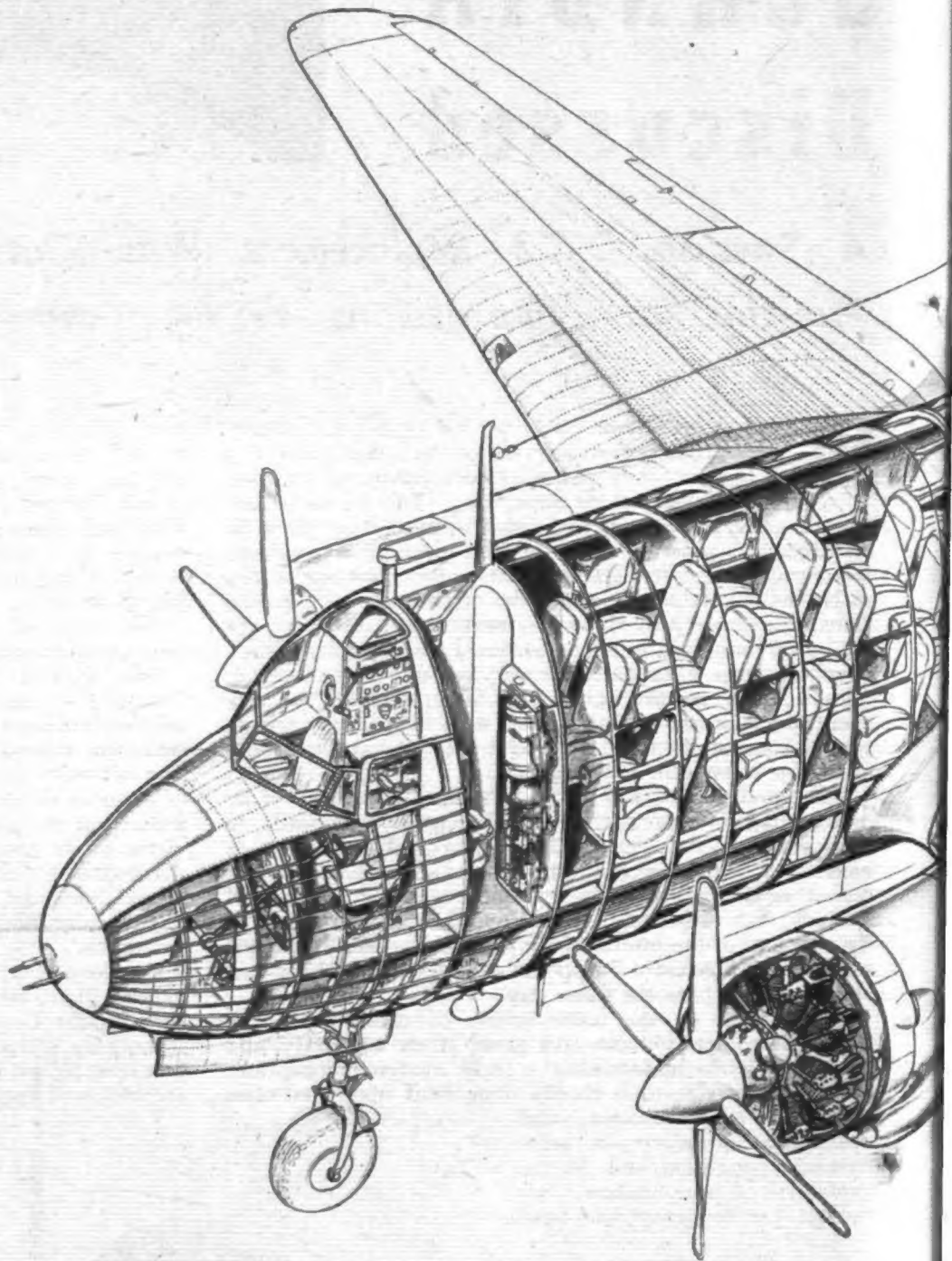
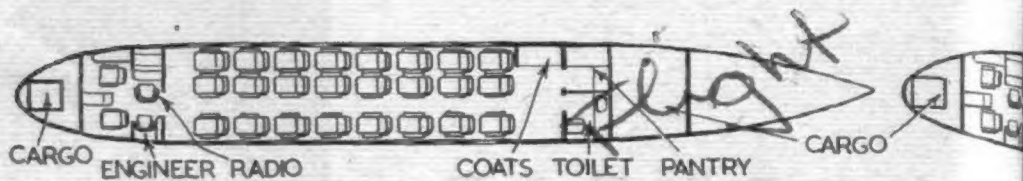
be available until April, and the prototype is now flying with the less powerful R-2000 units. The R-2180s will give 1,650 b.h.p. max. for take-off, or 1,800 b.h.p. with water injection.

In construction, the Scandia embodies no fancy design details; it is plain and, for the most part, follows well-tried practices. Alclad is used throughout for skin and sheet components. The wing is a three-spar design made in three main sections—centre and two outer—and with detachable wing tips. The main sections are bolted together at the spars and by numerous bolts in tension round the joint. The spars have extruded booms and sheet webs with extruded stiffeners. Mr. Bror Bjurströmer, the chief designer, who has spent several years in America, wanted to be sure that there would be uniform stress distribution throughout the skin, thus minimizing the chance of fatigue failure. The main ribs are notched to receive spanwise stringers, which were adopted in preference to corrugated sheet for ease of production. The wing centre section has been kept as stiff as possible, and the fuel tanks are confined to the outer wings. A main plane is illustrated during tests devised to simulate full load pressure distribution.

Landing Gear

Forward-retracting main wheels fold into the rear fairings of the engine nacelles, which also contain the oil tanks, but the legs are attached directly to the wing spars and are independent of the nacelle and mounting structure. Emergency lowering of the wheels is effected by gravity plus slipstream, the pressure of which causes the downlocks to engage. Goodyear triple-shoe single-disc brakes are fitted.

Since the prototype first flew, the original oval-section engine nacelle containing the oil cooler has been abandoned in favour of a more conventional round-section cowl with separate underneath air intake and cooling scoop. The redesign has also raised the airscrew centre line by about



Development of the stall from wing root to wing tip as the angle of attack increases.

DETAILS of construction, layout and accommodation of the Twin Wasp-engined 24-seater Scandia. Inset above are alternative seating plans. The flight engineer's position is optional.

